



# **Grain Transportation Report**

A weekly publication of the Transportation and Marketing Programs/Transportation Services Division www.ams.usda.gov/GTR

WEEKLY HIGHLIGHTS

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October 2, 2014

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Grain Barge Rates Advance to Unprecedented Levels

With the anticipation of the upcoming record corn and soybean harvest, grain barge rates for this week are at unprecedented highs, with spot rates ranging from 883 to 1,100 percent of the benchmark tariff. As of September 30, shippers looking to buy barge services to move grain to the Mississippi River Gulf can expect to pay from \$33.50 per ton from the lower Mississippi River to \$54.66 from Minneapolis-St-Paul, MN. Barge operators have indicated that there have been limited freight buyers at current spot rates, and most barge activity has been on the lower Mississippi River. However, with only 12 percent of the corn and 10 percent of the soybeans harvested, it is too early in the harvest to know how much barge rates will escalate or retreat from current levels.

Soybean Inspections Continue to Increase

For the week ending September 25, total inspections of soybeans continued to increase, reaching .725 million metric tons (mmt). Soybean inspections, up 47 percent from the past week, were up for the third consecutive week and were shipped primarily to Asia and Europe. Wheat inspections (.602 mmt) increased 10 percent from the past week as shipments to Latin America increased. Inspections of corn, however, decreased 43 percent from the past week. Mississippi Gulf and Pacific Northwest grain inspections were down from the previous week, but Texas Gulf inspections increased 4 percent. The increase in wheat and soybean inspections could not offset the drop in corn inspections, decreasing the total inspections of grain (corn, wheat, soybeans) from all major export regions to 1.9 mmt, a 7 percent drop from the past week. Outstanding export sales (unshipped) of soybeans increased 9 percent from the previous week, but corn and wheat unshipped balances decreased slightly.

Surface Transportation Board Awards Contract for Rate Challenge Study

The Surface Transportation Board (STB) has awarded a contract to InterVISTAS Consulting LLC to conduct an independent analysis evaluating potential alternative rate regulation approaches. The focus of the study is to reduce the time, complexity, and costs associated with the STB's Stand-Alone Cost methodology used by shippers to challenge rail rates believed to be excessive. Shippers, including grain shippers, have commented for many years that the Stand-Alone Cost test is prohibitively expensive, effectively leaving shippers without recourse to bring large rate challenges. The study is expected to be completed and made public in late 2015. InterVISTAS is an international transportation consulting firm.

Lower Corn Prices Bring Renewed Interest in Ethanol

During the week ending September 26, the U.S. Department of Commerce's Economic Development Administration announced a grant of \$1.9 million in Public Works funds to the Village of Waltonville, Illinois, to build infrastructure (water, sewage, and roads) needed for a new ethanol plant. The project will create economic opportunity for rural communities within a 75-mile radius. In addition, Dakota Spirit AgEnergy LLC is building a 65 million gallons-per-year corn ethanol plant in Spiritwood, ND, and a corn and sorghum ethanol plant is under consideration in central South Dakota. On September 3, a federally-backed facility in Emmetsburg, IA, began producing ethanol from corn waste, becoming the first commercial-scale cellulosic ethanol plant in the United States to use corn waste.

**Snapshots by Sector** 

U.S. railroads originated 19,319 carloads of grain during the week ending September 20, up 13 percent from last week, 23 percent from last year, and 6 percent from the 3-year average.

During the week ending September 25, average October non-shuttle **secondary railcar bids/offers per car** were \$3,000 above tariff. Average shuttle secondary railcar bids/offers per car were \$4,625 above tariff, up \$1,200 from last week and \$3,613 higher than last year.

Barge

During the week ending September 27 **barge grain movements** totaled 361,600 tons—5.25 percent higher than the previous week and 31 percent higher than the same period last year.

During the week ending September 27, 227 grain barges **moved down river**, up 1 percent from last week; 722 grain barges were **unloaded in New Orleans**, up 3.3 percent from the previous week.

Ocean

During the week ending September 25, 44 **ocean-going grain vessels** were loaded in the Gulf, 13 percent more than the same period last year. Seventy-four vessels are expected to be loaded within the next 10 days, 28 percent more than the same period last year.

During the week ending September 26, the ocean freight rate for shipping bulk grain from the Gulf to Japan was \$46 per mt, up 2 percent from the previous week. The cost of shipping from the PNW to Japan was \$25.50 per mt, unchanged from the previous week.

Fue

During the week ending September 29, U.S. average **diesel fuel prices** decreased 2 cents from the previous week to \$3.76 per gallon—down 16 cents from the same week last year.

### Feature Article/Calendar

### Measuring the Effects of Rail Service Disruptions

Rail service disruptions during the past year have had consequences for agricultural shippers and producers, but only a few studies have quantified the degree of these impacts. These studies measured changes in local cash market basis levels to estimate the effects of rail service disruptions on agricultural producer income within individual States. Data from the Grain Transportation Report (GTR) offer an alternative perspective and method of quantifying the degree of rail service disruptions. GTR data are able to show how the magnitude and duration of the current situation compare to those of previous rail service disruptions. Based on these comparisons, the current rail disruptions have been the most severe for agricultural shippers and producers in the past 12 years.

The Grain Transport Cost Indicators, published each week in **Table 1**, track the relative changes in the weekly costs of shipping grain by various transportation modes. They are indexed to the average cost of each mode during the base year of 2000. The unit train and shuttle indicators include the average weekly near-month secondary railcar market bid and average monthly tariff rate with fuel surcharge. Analyzing the unit train and shuttle indexes with and without the secondary railcar market component gives an approximation of unexpected shifts in demand for, or supply of, rail service.

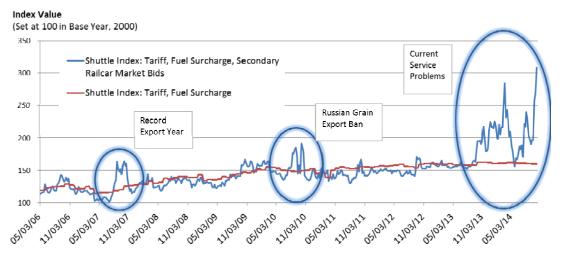
Railroads price tariff rates for service based on the value of the service, the degree of competition, and the expected supply and demand of rail service. They are not frequently adjusted due to a requirement for providing advance notice. Similarly, fuel surcharges are adjusted on a monthly basis and tied to the costs of diesel fuel. On the other hand, bids for guaranteed rail service through the secondary railcar market can fluctuate daily. When supply and demand are in equilibrium, bids in the secondary railcar market will be close to zero, as the tariff prices set by the railroads are sufficient to efficiently allocate supply with demand. However, when there are unexpected service disruptions, limiting the supply of rail service, or unexpected increases in demand, bids in the secondary railcar market increase. By plotting the indexed tariff rate with fuel surcharge against an index that also includes the secondary railcar market component, unexpected shifts in supply and demand become apparent. The past year was marked by both higher than anticipated demand for service and rail service disruptions.

Figures 1 and 2 show the magnitude and duration of recent unexpected shifts in supply and demand for shuttle and non-shuttle rail service. The current rail service problems have exceeded previous events in terms of both magnitude and duration, including Hurricane Katrina, which caused major disruptions throughout the entire agricultural transportation network. The magnitude of all previous events for non-shuttle service averaged a 20-point spread between the two indexes, as measured by the difference between the non-shuttle indexes with and without the secondary railcar market component. The magnitude of the difference for shuttle service averaged 22 points. In contrast, the spread has averaged 27 points for non-shuttle service and 43 points for shuttle service during the current rail service problems. Typical unexpected shifts in demand and supply have lasted less than 20 weeks before they were resolved, with the exception of Hurricane Katrina, which took roughly 28 weeks. In contrast, the current rail service problems have extended over twice as long—about 58 weeks—with no end in sight. Average bids in both the shuttle and non-shuttle secondary railcar markets were at record highs this week, \$4,625 per car for shuttle service and \$3,000 per car for non-shuttle service.

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<sup>&</sup>lt;sup>1</sup> The data in Figures 1 and 2 have been adjusted to remove any of the effects from inflation using the Bureau of Economic Analysis' Implicit Price Deflator for Gross Domestic Product. USDA does not have secondary railcar market data for shuttle trains prior to 2006, which is why the shuttle analysis in Figure 1 does not cover the same time period as the non-shuttle analysis in Figure 2.

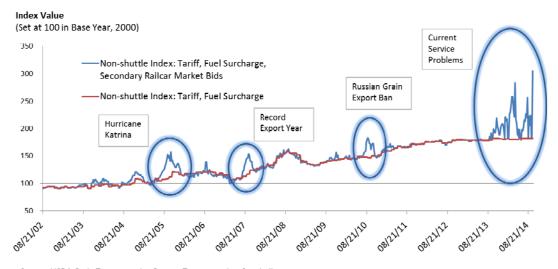
Figure 1: Supply and Demand Effects on Rail Shipping Costs - Shuttle



Source: USDA Grain Transportation Report, Transportation Cost Indicators

NB: All prices have been adjusted for inflation using the Bureau of Economic Analysis' Implicit Price Deflator for Gross Domestic Product

Figure 2: Supply and Demand Effects on Rail Shipping Costs - Non-Shuttle



Source: USDA Grain Transportation Report, Transportation Cost Indicators

NB: All prices have been adjusted for inflation using the Bureau of Economic Analysis' Implicit Price Deflator for Gross Domestic Product

The patterns depicted in the figures above show that current rail service problems have had the greatest impact on the overall cost of shipping grain by rail of any recent events. Demand for rail service is likely to continue growing from agricultural shippers, following last year's record harvest and as a result of the projected record harvest this year. Much of this demand is from grain shippers with access to only a single railroad, without competitive options from other railroads, too distant from barge facilities, or beyond the economical range for shipping by truck. Until railroads are able to increase the supply of rail service to grain shippers through capacity expansion projects or other innovations, prices in the secondary railcar market are likely to remain at historic levels, indicating inadequate rail transportation options to meet current demand. Adam.Sparger@ams.usda.gov

## **Grain Transportation Indicators**

Table 1 **Grain Transport Cost Indicators**<sup>1</sup>

	Truck	Rail		Barge	Oc	ean
Week ending		Unit Train	Shuttle		Gulf	Pacific
10/01/14	252	411	413	593	206	181
09/24/14	254	241	360	458	203	181

<sup>&</sup>lt;sup>1</sup>Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge (\$/car); barge = Illinois River barge rate (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

Source: Transportation & Marketing Programs/AMS/USDA

Table 2

Market Update: U.S. Origins to Export Position Price Spreads (\$/bushel)

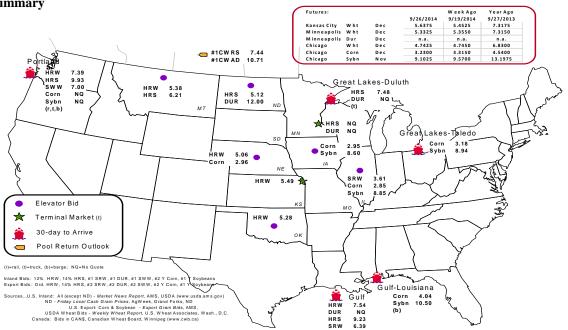
Commodity	OriginDestination	9/26/2014	9/19/2014
	W G 19	4.40	1.06
Corn	ILGulf	-1.19	-1.06
Corn	NEGulf	-1.08	-1.06
Soybean	IAGulf	-1.90	-1.10
HRW	KSGulf	-2.05	-2.05
HRS	NDPortland	-4.81	-4.74

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1 Grain bid Summary



# Rail Transportation

Table 3

Rail Deliveries to Port (carloads)<sup>1</sup>

,	Mississippi		Pacific	Atlantic &			Cross-Border
Week ending	Gulf	Texas Gulf	Northwest	East Gulf	Total	Week ending	Mexico <sup>3</sup>
9/24/2014 <sup>p</sup>	342	1,016	2,973	71	4,402	9/20/2014	1,814
9/17/2014 <sup>r</sup>	30	1,308	3,552	237	5,127	9/13/2014	2,240
2014 YTD <sup>r</sup>	22,201	62,750	168,602	18,978	272,531	2014 YTD	74,085
2013 YTD <sup>r</sup>	10,131	56,013	94,861	10,360	171,365	2013 YTD	47,061
2014 YTD as % of 2013 YTD	219	112	178	183	159	% change YTD	157
Last 4 weeks as % of 2013 <sup>2</sup>	632	56	125	378	101	Last 4wks % 2013	145
Last 4 weeks as % of 4-year avg. <sup>2</sup>	67	72	137	188	109	Last 4wks % 4 yr	140
Total 2013	31,646	71,388	168,826	25,176	297,036	Total 2013	70,298
Total 2012	22,604	40,780	199,419	24,659	287,462	Total 2012	92,008

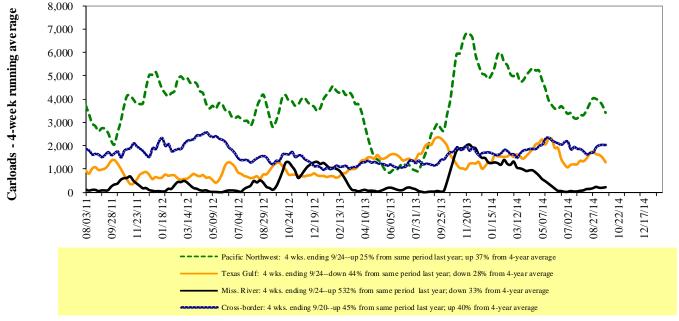
Data is incomplete as it is voluntarily provided

YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available

Source: Transportation & Marketing Programs/AMS/USDA

Railroads originate approximately 29 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2 **Rail Deliveries to Port** 



Source: Transportation & Marketing Programs/AMS/USDA

<sup>&</sup>lt;sup>2</sup> Compared with same 4-weeks in 2013 and prior 4-year average.

<sup>&</sup>lt;sup>3</sup> Cross-border weekly data is aproximately 15 percent below the Association of American Railroads reported weekly carloads received by Mexican railroads to reflect switching between KCSM and FerroMex.

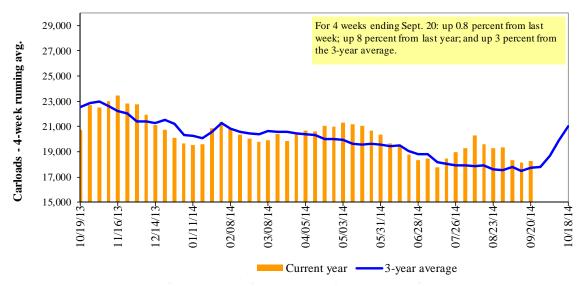
Table 4
Class I Rail Carrier Grain Car Bulletin (grain carloads originated)

	E	ast		West		U.S. total	Ca	nada
Week ending	CSXT	NS	BNSF	KCS	UP		CN	CP
09/20/14	1,057	1,551	9,685	873	6,153	19,319	3,974	5,036
This week last year	1,339	1,014	8,591	856	3,884	15,684	3,918	4,980
2014 YTD	68,258	107,039	330,717	32,006	212,631	750,651	166,902	199,517
2013 YTD	52,617	88,412	326,622	20,895	146,494	635,040	122,310	192,587
2014 YTD as % of 2013 YTD	130	121	101	153	145	118	136	104
Last 4 weeks as % of 2013	105	146	96	99	123	108	111	110
Last 4 weeks as % of 3-yr avg. <sup>1</sup>	128	102	91	114	120	103	114	103
Total 2013	86,466	137,915	454,262	34,412	222,258	935,313	190,125	272,753

As a percent of the same period in 2009 and the prior 3-year average. YTD = year-to-date.

Source: Association of American Railroads (www.aar.org)

Figure 3
Total Weekly U.S. Class I Railroad Grain Car Loadings



Source: Association of American Railroads

Table 5
Railcar Auction Offerings (\$/car)<sup>2</sup>

Week ending				Delivery	period			
9/25/2014	Oct-14	Oct-13	Nov-14	Nov-13	Dec-14	Dec-13	Jan-15	Jan-14
BNSF <sup>3</sup>								
COT grain units	no offer	17	no offer	15				
COT grain single-car <sup>5</sup>	no offer	066	no offer	012				
$UP^4$								
GCAS/Region 1	no offer	no bids	no offer	no bids	no offer	no bids	n/a	n/a
GCAS/Region 2	no offer	51	no offer	1	no offer	no bids	n/a	n/a

<sup>&</sup>lt;sup>1</sup>Auction offerings are for single-car and unit train shipments only.

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA.

<sup>&</sup>lt;sup>2</sup>Average premium/discount to tariff, last auction

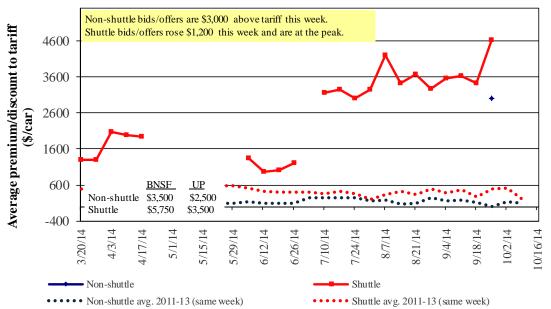
<sup>&</sup>lt;sup>3</sup>BNSF - COT = Certificate of Transportation; north grain and south grain bids were combined effective the week ending 6/24/06.

<sup>&</sup>lt;sup>4</sup>UP - GCAS = Grain Car Allocation System

<sup>&</sup>lt;sup>5</sup>Range is shown because average is not available. Not available = n/a.

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4
Bids/Offers for Railcars to be Delivered in October 2014, Secondary Market



Non-shuttle bids include unit-train and single-car bids. n/a = not available.

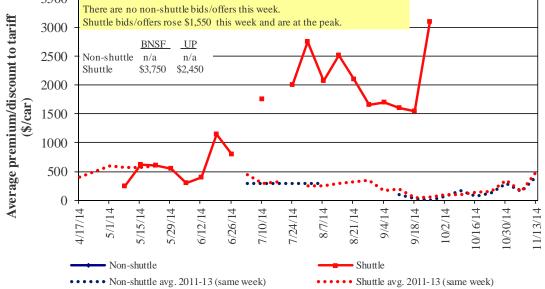
Source: Transportation & Marketing Programs/AMS/USDA

Figure 5

Bids/Offers for Railcars to be Delivered in November 2014, Secondary Market

3500

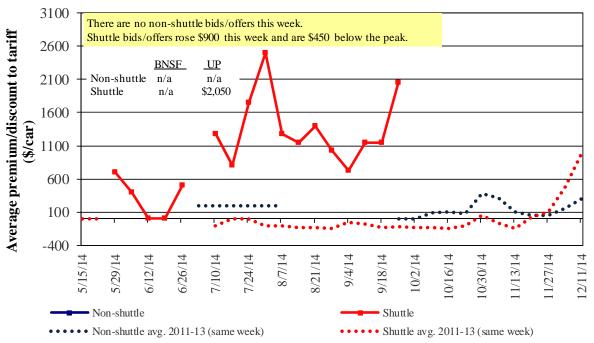
There are no non-shuttle bids/offers this week.
Shuttle bids/offers rose \$1,550 this week and are at the peak.



Non-shuttle bids include unit-train and single-car bids. n/a = not available.

Source: Transportation & Marketing Programs/AMS/USDA

Figure 6
Bids/Offers for Railcars to be Delivered in December 2014, Secondary Market



Non-shuttle bids include unit-train and single-car bids. n/a = not available.

Source: Transportation & Marketing Programs/AMS/USDA

Table 6
Weekly Secondary Railcar Market (\$/car)<sup>1</sup>

Week ending			Delive	ry period		
9/25/2014	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Non-shuttle						
BNSF-GF	3,500	n/a	n/a	n/a	n/a	n/a
Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
Change from same week 2013	n/a	n/a	n/a	n/a	n/a	n/a
UP-Pool	2,500	n/a	n/a	n/a	n/a	n/a
Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
Change from same week 2013	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle <sup>2</sup>						
BNSF-GF	5,750	3,750	n/a	n/a	n/a	n/a
Change from last week	1,650	n/a	n/a	n/a	n/a	n/a
Change from same week 2013	4,300	3,450	n/a	n/a	n/a	n/a
UP-Pool	3,500	2,450	2,050	1,300	n/a	n/a
Change from last week	750	900	900	350	n/a	n/a
Change from same week 2013	2,925	2,200	2,113	n/a	n/a	n/a

Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

n/a = not available; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from James B. Joiner Co., Tradewest Brokerage Co.

<sup>&</sup>lt;sup>2</sup>Shuttle bids are a new data series; prior to this we provided only non-shuttle rates.

Table 7

Tariff Rail Rates for Unit and Shuttle Train Shipments<sup>1</sup>

Effective date:			Tariff	Fuel	Tariff plus surch	narge ner	Percent change
10/1/2014	Origin region*	Destination region*	rate/car	surcharge _ per car	metric ton	bus hel <sup>2</sup>	Y/Y <sup>3</sup>
Unit train	Origin region	Destination region	Tate/car	per em	metric ton	10 000 210 2	
Wheat	Wichita, KS	St. Louis, MO	\$3,387	\$177	\$35.39	\$0.96	6
	Grand Forks, ND	Duluth-Superior, MN	\$3,596	\$101	\$36.72	\$1.00	0
	Wichita, KS	Los Angeles, CA	\$6,244	\$520	\$67.17	\$1.83	0
	Wichita, KS	New Orleans, LA	\$4,026	\$312	\$43.07	\$1.17	5
	Sioux Falls, SD	Galveston-Houston, TX	\$5,824	\$427	\$62.08	\$1.69	0
	Northwest KS	Galveston-Houston, TX	\$4,293	\$341	\$46.02	\$1.25	4
	Amarillo, TX	Los Angeles, CA	\$4,492	\$475	\$49.32	\$1.34	4
Corn	Champaign-Urbana, IL	New Orleans, LA	\$3,328	\$352	\$36.55	\$0.93	3
	Toledo, OH	Raleigh, NC	\$4,875	\$398	\$52.37	\$1.33	3
	Des Moines, IA	Davenport, IA	\$2,168	\$75	\$22.27	\$0.57	4
	Indianapolis, IN	Atlanta, GA	\$4,211	\$299	\$44.79	\$1.14	3
	Indianapolis, IN	Knoxville, TN	\$3,593	\$192	\$37.59	\$0.95	3
	Des Moines, IA	Little Rock, AR	\$3,308	\$219	\$35.03	\$0.89	2
	Des Moines, IA	Los Angeles, CA	\$5,365	\$638	\$59.61	\$1.51	2
Soybeans	Minneapolis, MN	New Orleans, LA	\$3,649	\$387	\$40.08	\$1.09	3
	Toledo, OH	Huntsville, AL	\$3,807	\$283	\$40.61	\$1.11	3
	Indianapolis, IN	Raleigh, NC	\$4,946	\$401	\$53.10	\$1.45	3
	Indianapolis, IN	Huntsville, AL	\$3,499	\$192	\$36.65	\$1.00	3
	Champaign-Urbana, IL	New Orleans, LA	\$3,974	\$352	\$42.96	\$1.17	5
Shuttle Train							
Wheat	Great Falls, MT	Portland, OR	\$3,678	\$299	\$39.50	\$1.07	0
	Wichita, KS	Galveston-Houston, TX	\$3,471	\$233	\$36.78	\$1.00	-8
	Chicago, IL	Albany, NY	\$4,140	\$374	\$44.82	\$1.22	4
	Grand Forks, ND	Portland, OR	\$5,159	\$517	\$56.36	\$1.53	-1
	Grand Forks, ND	Galveston-Houston, TX	\$6,084	\$538	\$65.76	\$1.79	0
	Northwest KS	Portland, OR	\$5,260	\$560	\$57.79	\$1.57	3
Corn	Minneapolis, MN	Portland, OR	\$5,000	\$629	\$55.90	\$1.42	-1
	Sioux Falls, SD	Tacoma, WA	\$4,960	\$576	\$54.98	\$1.40	-1
	Champaign-Urbana, IL	New Orleans, LA	\$3,147	\$352	\$34.75	\$0.88	3
	Lincoln, NE	Galveston-Houston, TX	\$3,510	\$336	\$38.19	\$0.97	-1
	Des Moines, IA	Amarillo, TX	\$3,690	\$275	\$39.38	\$1.00	2
	Minneapolis, MN	Tacoma, WA	\$5,000	\$624	\$55.85	\$1.42	-1
	Council Bluffs, IA	Stockton, CA	\$4,400	\$646	\$50.11	\$1.27	-1
Soybeans	Sioux Falls, SD	Tacoma, WA	\$5,520	\$576	\$60.54	\$1.65	-1
	Minneapolis, MN	Portland, OR	\$5,530	\$629	\$61.17	\$1.66	-1
	Fargo, ND	Tacoma, WA	\$5,430	\$512	\$59.01	\$1.61	-1
	Council Bluffs, IA	New Orleans, LA	\$4,425	\$406	\$47.97	\$1.31	5
	Toledo, OH	Huntsville, AL	\$2,982	\$283	\$32.42	\$0.88	3
	Grand Island, NE	Portland, OR Shuttle train rates are available for or	\$5,360	\$573	\$58.92	\$1.60	4

<sup>&</sup>lt;sup>1</sup>A unit train refers to shipments of at least 25 cars. Shuttle train rates are available for qualified shipments of

<sup>75-120</sup> cars that meet railroad efficiency requirements.

 $<sup>^2</sup> Approximate load per car = 111 \ short tons \ (100.7 \ metric tons): \ com \ 56 \ lbs./bu., \ wheat \ \& \ soybeans \ 60 \ lbs./bu.$ 

<sup>&</sup>lt;sup>3</sup>Percentage change year over year calculated using tariff rate plus fuel surchage

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

<sup>\*</sup>Regional economic areas defined by the Bureau of Economic Analysis (BEA)

Table 8
Tariff Rail Rates for U.S. Bulk Grain Shipments to Mexico

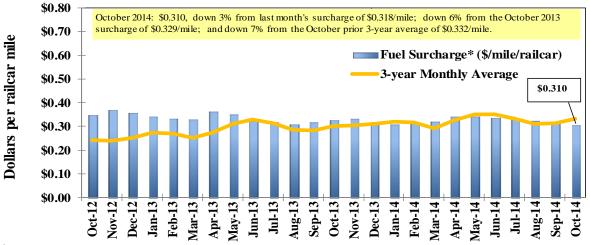
Effective date		4		Fuel			Percent
	Origin		Tariff	surcharge	Tariff plus surcl	harge per:	change
Commodity	state	Destination region	rate/car <sup>1</sup>	per car <sup>2</sup>	metric ton <sup>3</sup>	bus hel <sup>3</sup>	$Y/Y^4$
Wheat	MT	Chihuahua, CI	\$6,460	\$547	\$71.59	\$1.95	1
	OK	Cuautitlan, EM	\$6,565	\$664	\$73.86	\$2.01	2
	KS	Guadalajara, JA	\$7,149	\$642	\$79.60	\$2.16	-13
	TX	Salinas Victoria, NL	\$3,852	\$250	\$41.92	\$1.14	30
Corn	IA	Guadalajara, JA	\$8,049	\$754	\$89.95	\$2.28	0
	SD	Celaya, GJ	\$7,656	\$715	\$85.54	\$2.17	-1
	NE	Queretaro, QA	\$7,535	\$670	\$83.84	\$2.13	2
	SD	Salinas Victoria, NL	\$5,880	\$544	\$65.63	\$1.67	0
	MO	Tlalnepantla, EM	\$6,887	\$651	\$77.02	\$1.95	1
	SD	Torreon, CU	\$6,722	\$599	\$74.80	\$1.90	0
Soybeans	MO	Bojay (Tula), HG	\$8,111	\$636	\$89.38	\$2.43	2
	NE	Guadalajara, JA	\$8,572	\$728	\$95.02	\$2.58	1
	IA	El Castillo, JA	\$8,855	\$711	\$97.74	\$2.66	0
	KS	Torreon, CU	\$6,989	\$452	\$76.02	\$2.07	1
Sorghum	TX	Guadalajara, JA	\$6,953	\$465	\$75.80	\$1.92	2
	NE	Celaya, GJ	\$7,287	\$649	\$81.09	\$2.06	0
	KS	Queretaro, QA	\$6,795	\$408	\$73.59	\$1.87	-3
	NE	Salinas Victoria, NL	\$5,500	\$478	\$61.08	\$1.55	-3
	NE	Torreon, CU	\$6,318	\$533	\$70.00	\$1.78	-1

<sup>&</sup>lt;sup>1</sup>Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified

Sources: www.bnsf.com, www.uprr.com, www.kcsouthern.com

Figure 7

Railroad Fuel Surcharges, North American Weighted Average<sup>1</sup>



 $<sup>^{\</sup>rm I}$  Weighted by each Class I railroad's proportion of grain traffic for the prior year.

 $Sources:\ www.bnsf.com,\ www.cn.ca,\ www.cpr.ca,\ www.csx.com,\ www.kcsi.com,\ www.nscorp.com,\ www.uprr.com$ 

shipments of 75--110 cars that meet railroad efficiency requirements.

<sup>&</sup>lt;sup>2</sup>Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V railroad fuel surcharge policy as of 10/01/2009

<sup>&</sup>lt;sup>3</sup>Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

<sup>&</sup>lt;sup>4</sup>Percentage change year over year calculated using tariff rate plus fuel surchage

<sup>\*</sup> Mileage-based fuel surcharges for March and April 2007 are estimated. Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

<sup>\*\*</sup> BNSF strike price (diesel price when fuel surcharges begin) changed from \$1.25/gal. to \$2.50/gal starting March 1, 2011. As a result, the weighted average fuel surcharge for March 2011 was \$0.227/mile instead of \$0.331/mile.

### **Barge Transportation**

Figure 8

Illinois River Barge Freight Rate<sup>1,2</sup>



<sup>&</sup>lt;sup>1</sup>Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); <sup>2</sup>4-week moving average of the 3-year average.

Source: Transportation & Marketing Programs/AMS/USDA

Table 9
Weekly Barge Freight Rates: Southbound Only

	, <b>g g</b>	Twin	Mid-	Lower Illinois	G. T.		Lower	Cairo-
		Cities	Mississippi	River	St. Louis	Cincinnati	Ohio	Memphis
Rate <sup>1</sup>	9/30/2014	883	1,017	1,067	1,033	1,100	1,100	1,067
	9/23/2014	763	829	825	869	896	896	896
\$/ton	9/30/2014	54.66	54.10	49.51	41.22	51.59	44.44	33.50
	9/23/2014	47.23	44.10	38.28	34.67	42.02	36.20	28.13
Curren	at week % change	from the sa	me week:					
	Last year	45	67	79	75	67	67	86
	3-year avg. <sup>2</sup>	54	78	91	96	89	89	99
Rate <sup>1</sup>	October	917	1,100	1,117	1,000	1,050	1,083	1,000
	December	_	_	658	550	617	617	517

<sup>&</sup>lt;sup>1</sup>Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); <sup>2</sup>4-week moving average; ton = 2,000 pounds;

Source: Transportation & Marketing Programs/AMS/USDA

#### Figure 9 Benchmark tariff rates

#### Calculating barge rate per ton:

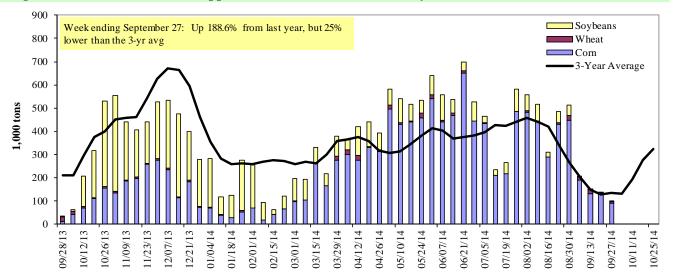
(Rate \* 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map.



Figure 10

Barge Movements on the Mississippi River¹ (Locks 27 - Granite City, IL)



<sup>&</sup>lt;sup>1</sup> The 3-year average is a 4-week moving average.

Source: U.S. Army Corps of Engineers

Table 10 **Barge Grain Movements (1.000 tons)** 

Week ending 9/27/2014	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	28	5	0	0	32
Winfield, MO (L25)	46	5	2	2	54
Alton, IL (L26)	98	6	5	2	111
Granite City, IL (L27)	90	6	5	2	103
Illinois River (L8)	22	0	0	0	22
Ohio River (L52)	191	3	5	0	199
Arkansas River (L1)	1	8	42	8	60
Weekly total - 2014	282	18	52	10	362
Weekly total - 2013	180	68	28	0	276
2014 YTD <sup>1</sup>	16,832	2,021	5,337	175	24,365
2013 YTD	5,738	3,780	4,669	143	14,329
2014 as % of 2013 YTD	293	53	114	122	170
Last 4 weeks as % of 2013 <sup>2</sup>	212	29	91	970	121
Total 2013	9,504	4,111	10,065	255	23,935

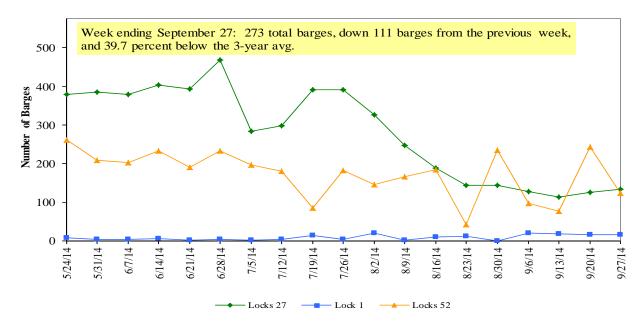
Weekly total, YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

Note: Total may not add exactly, due to rounding

Source: U.S. Army Corps of Engineers

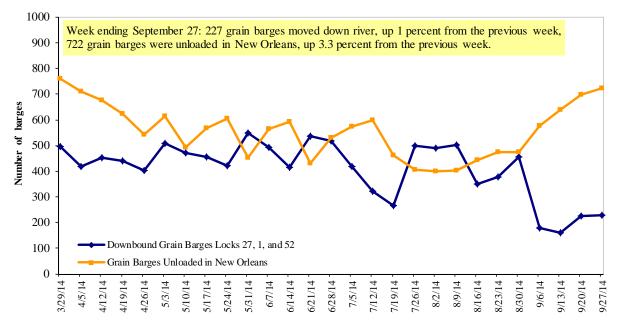
<sup>&</sup>lt;sup>2</sup> As a percent of same period in 2013.

Figure 11
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Locks and Dam 52



Source: U.S. Army Corps of Engineers

Figure 12 **Grain Barges for Export in New Orleans Region** 



Source: U.S. Army Corps of Engineers and GIPSA

## **Truck Transportation**

The **weekly diesel price** provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

Table 11

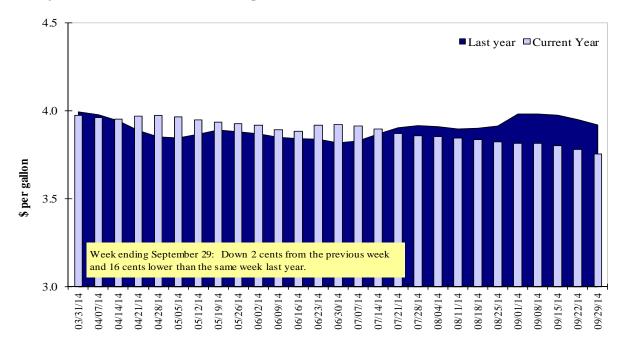
Retail on-Highway Diesel Prices<sup>1</sup>, Week Ending 9/29/2013 (US \$/gallon)

			Chang	e from
Region	Location	Price	Week ago	Year ago
I	East Coast	3.778	-0.026	-0.153
	New England	3.880	-0.006	-0.166
	Central Atlantic	3.857	-0.029	-0.140
	Lower Atlantic	3.694	-0.028	-0.167
II	Midwest <sup>2</sup>	3.694	-0.019	-0.200
III	Gulf Coast <sup>3</sup>	3.685	-0.011	-0.146
IV	Rocky Mountain	3.806	-0.035	-0.121
V	West Coast	3.948	-0.042	-0.127
	West Coast less California	3.876	-0.053	-0.085
	California	4.007	-0.034	-0.165
Total	U.S.	3.755	-0.023	-0.164

<sup>&</sup>lt;sup>1</sup>Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Figure 13
Weekly Diesel Fuel Prices, U.S. Average



Source: Retail On-Highway Diesel Prices, Energy Information Administration, Dept. of Energy

<sup>&</sup>lt;sup>2</sup>Same as North Central <sup>3</sup>Same as South Central

## **Grain Exports**

Table 12

U.S. Export Balances and Cumulative Exports (1,000 metric tons)

			Who	eat			Corn	Soybeans	Total
Week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export Balances <sup>1</sup>									
9/18/2014	1,352	1,000	1,670	723	83	4,818	11,419	27,338	43,575
This week year ago	1,522	1,879	1,216	908	88	5,614	12,692	25,120	43,426
Cumulative exports-marketing year <sup>2</sup>									
2014/15 YTD	2,654	1,425	2,422	1,351	167	8,019	2,457	693	11,169
2013/14 YTD	4,957	3,927	1,804	1,280	110	12,077	1,169	577	13,823
YTD 2014/15 as % of 2013/14	54	36	134	106	152	66	210	120	81
Last 4 wks as % of same period 2013/14	95	54	140	94	84	90	72	78	78
2013/14 Total	11,465	7,307	6,338	4,367	486	29,963	46,868	44,478	121,309
2012/13 Total	10,019	5,039	5,825	4,619	591	26,093	17,980	36,220	80,293

Current unshipped export sales to date

Note: YTD = year-to-date. Marketing Year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Table 13 **Top 5 Importers**<sup>1</sup> **of U.S. Corn** 

Week ending 09/18/2014	Total Comr	nitments <sup>2</sup>	% change	Exports <sup>3</sup>
	2014/15	2013/14	current MY	3-year avg
	<b>Current MY</b>	Last MY	from last MY	2011-2013
	- 1,0	000 mt -		- 1,000 mt -
Japan	2,624	1,993	32	10,079
Mexico	3,634	3,773	(4)	8,145
Korea	284	8	3,691	2,965
China	34	3,318	(99)	3,461
Taiwan	214	177	21	1,238
Top 5 Importers	6,790	9,268	(27)	25,887
Total US corn export sales	13,876	13,861	0.1	34,445
% of Projected	31%	28%		
Change from prior week	836	640		
Top 5 importers' share of U.S.				
corn export sales	49%	67%		75%
USDA forecast, September 2014	44,450	48,900	(9)	
Corn Use for Ethanol USDA				
forecast, September 2014	130,175	130,175	0	

<sup>(</sup>n) indicates negative number.

<sup>&</sup>lt;sup>2</sup> Shipped export sales to date; new marketing year in effect for corn and soybeans

<sup>&</sup>lt;sup>1</sup>Based on FAS Marketing Year Ranking Reports - www.fas.usda.gov; Marketing year (MY) = Sep 1 - Aug 31.

<sup>&</sup>lt;sup>2</sup>Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query-http://www.fas.usda.gov/esrquery/

<sup>&</sup>lt;sup>3</sup>FAS Marketing Year Ranking Reports - http://apps.fas.usda.gov/export-sales/myrkaug.htm; 3-yr average

Table 14

Top 5 Importers<sup>1</sup> of U.S. Soybeans

Week Ending 09/18/2014	Total Commitments <sup>2</sup>		% change	Exports <sup>3</sup>
	2014/15	2013/14	current MY	3-yr avg.
	Current MY	Last MY	from last MY	2011-13
	- 1,000 1	nt -		- 1,000 mt -
China	16,267	17,327	(6)	24,211
Mexico	970	746	30	2,971
Indonesia	553	377	47	1,895
Japan	477	415	15	1,750
Taiwan	508	471	8	1,055
Top 5 importers	18,775	19,337	(3)	31,882
Total US soybean export sales	28,031	25,697	9	39,169
% of Projected	61%	57%		
Change from prior week	2,566	2,817		
Top 5 importers' share of U.S.				
soybean export sales	67%	75%		81%
USDA forecast, September 2014	46,270	44,770	3	

<sup>(</sup>n) indicates negative number.

Table 15

**Top 10 Importers**<sup>1</sup> of All U.S. Wheat

Week Ending 09/18/2014	Total Commi	tments <sup>2</sup>	% change	Exports <sup>3</sup>
	2014/15	2013/14	current MY	3-yr avg
	Current MY	Last MY	from last MY	2011-2013
	- 1,	000 mt -		- 1,000 mt -
Japan	1,441	1,308	10	3,243
Mexico	1,544	1,787	(14)	3,066
Nigeria	1,266	1,325	(4)	2,960
Philippines	1,011	854	18	2,006
China	202	3,934	(95)	1,830
Brazil	1,339	2,464	(46)	1,617
Korea	726	578	26	1,552
Taiwan	518	365	42	969
Indonesia	295	423	(30)	813
Colombia	331	428	(23)	610
Top 10 importers	8,673	13,464	(36)	18,665
Total US wheat export sales	12,837	17,691	(27)	27,696
% of Projected	52%	55%		
Change from prior week	396	620		
Top 10 importers' share		·		
of U.S. wheat export sales	68%	76%		67%
USDA forecast, September 2014	24,490	32,010	(23)	

<sup>(</sup>n) indicates negative number.

<sup>&</sup>lt;sup>1</sup>Based on FAS Marketing Year Ranking Reports - www.fas.usda.gov; Marketing year (MY) = Sep 1 - Aug 31.

 $<sup>^2</sup> Cumulative\ Exports\ (shipped) + Outstanding\ Sales\ (unshipped), FAS\ Weekly\ Export\ Sales\ Report,\ or\ Export\ Sales\ Query-http://www.fas.usda.gov/esrquery/$ 

<sup>&</sup>lt;sup>3</sup> FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi\_rpt.htm. (Carryover plus Accumulated Exports)

<sup>&</sup>lt;sup>1</sup> Based on FAS Marketing Year Ranking Reports - www.fas.usda.gov; Marketing year = Jun 1 - May 31.

 $<sup>^2 \</sup> Cumulative \ Exports \ (shipped) + Outstanding \ Sales \ (unshipped), FAS \ Weekly \ Export \ Sales \ Report, or \ Export \ Sales \ Query--http://www.fas.usda.gov/esrquery/$ 

 $<sup>^3</sup>$  FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi\_rpt.htm.

Table 16

Grain Inspections for Export by U.S. Port Region (1,000 metric tons)

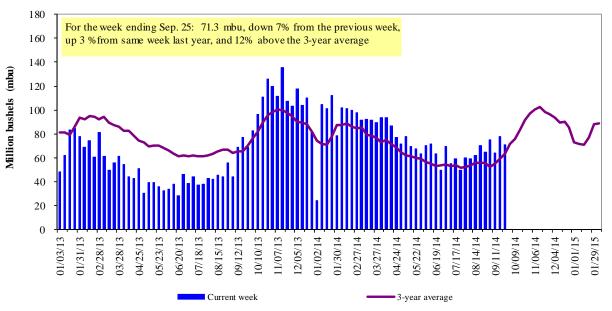
Port	Week ending	Previous	Current Week			2014 YTD as	Last 4-w	eeks as % of	Total <sup>1</sup>
regions	09/25/14	Week <sup>1</sup>	as % of Previous	2014 YTD <sup>1</sup>	2013 YTD <sup>1</sup>	% of 2013 YTD	2013	3-yr. avg.	2013
Pacific Northwes	st								
Wheat	186	253	74	9,792	9,231	106	72	79	11,585
Corn	125	118	106	7,318	1,378	531	9,106	473	2,973
Soybeans	0	0	n/a	4,507	3,770	120	0	0	9,090
Total	311	371	84	21,617	14,379	150	107	100	23,647
Mississippi Gulf									
Wheat	158	78	202	3,899	8,107	48	33	63	9,711
Corn	313	652	48	24,188	9,052	267	155	130	14,828
Soybeans	705	469	150	12,238	8,636	142	178	148	21,462
Total	1,177	1,199	98	40,325	25,796	156	117	123	46,002
Texas Gulf									
Wheat	139	118	117	5,122	7,227	71	48	63	9,039
Corn	24	32	76	510	163	313	1,309	3,738	255
Soybeans	0	7	0	265	122	217	n/a	0	908
Total	163	157	104	5,897	7,512	79	56	73	10,203
Interior									
Wheat	49	44	110	1,121	866	129	160	134	1,244
Corn	94	161	58	4,371	2,119	206	58	143	3,943
Soybeans	18	16	112	2,374	1,890	126	201	40	3,212
Total	161	221	73	7,866	4,875	161	113	113	8,399
Great Lakes									
Wheat	64	0	n/a	486	641	76	93	118	884
Corn	17	15	116	226	0	n/a	n/a	628	0
Soybeans	0	0	n/a	51	22	229	n/a	0	699
Total	81	15	550	762	663	115	132	155	1,583
Atlantic									
Wheat	6	52	11	467	607	77	105	164	645
Corn	3	38	8	677	31	n/a	350	480	242
Soybeans	1	2	66	1,002	698	143	69	30	1,652
Total	10	91	11	2,147	1,336	161	160	218	2,540
U.S. total from p	orts <sup>2</sup>								
Wheat	602	546	110	20,886	26,679	78	58	77	33,108
Corn	576	1,015	57	37,291	12,744	293	201	160	22,241
Soybeans	725	494	147	20,437	15,139	135	170	117	37,024
Total	1,903	2,055	93	78,614	54,562	144	109	112	92,373

<sup>&</sup>lt;sup>1</sup> Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov); YTD= year-to-date; n/a = not applicable

The United States exports approximately one-quarter of the grain it produces. On average, this includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 61 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2013.

Figure 14
U.S. grain inspected for export (wheat, corn, and soybeans)

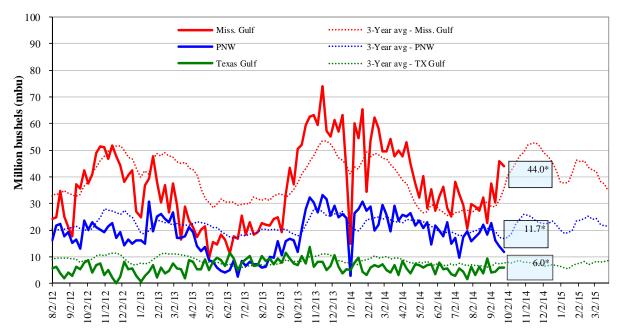


Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)

Note: 3-year average consists of 4-week running average

Figure 15

U.S. Grain Inspections: U.S. Gulf and PNW<sup>1</sup> (wheat, corn, and soybeans)



Source: Grain Inspection, Packers and Stocky ards Administration/USDA (www.gipsa.usda.gov); \*mbu, this week.

Sep 25: % change from:	MSGulf	TX Gulf	U.S. Gulf	PNW
Last week	down 4	up 3	down 3	down 16
Last year (same week) 3-yr avg. (4-wk mov. avg.)	up 19	down 19	up 12	down 27
	up 37	down 13	up 28	down 33

## **Ocean Transportation**

Table 17

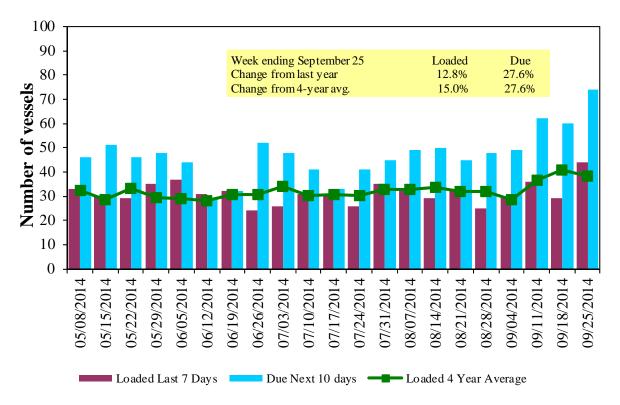
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

		Gulf		Pacific Northwest	Vancouver B.C.
		Loaded	Due next		
Date	In port	7-days	10-days	In port	In port
9/25/2014	36	44	74	15	n/a
9/18/2014	33	29	60	11	n/a
2013 range	(1660)	(2056)	(3181)	(024)	n/a
2013 avg.	32	33	51	12	n/a

Source: Transportation & Marketing Programs/AMS/USDA

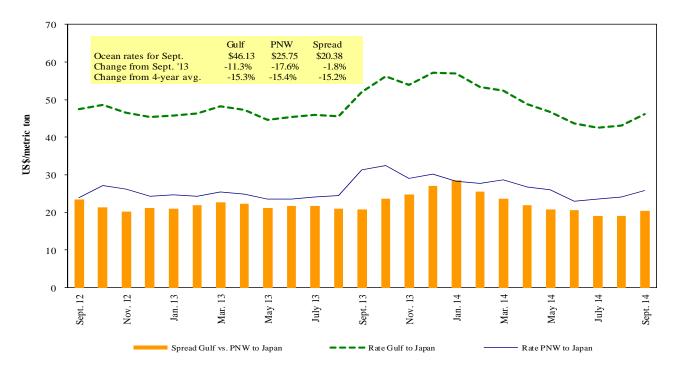
Figure 16

U.S. Gulf<sup>1</sup> Vessel Loading Activity



Source:Transportation & Marketing Programs/AMS/USDA <sup>1</sup>U.S. Gulf includes Mississippi, Texas, and East Gulf.

Figure 17 **Grain Vessel Rates, U.S. to Japan** 



Data Source: O'Neil Commodity Consulting

Table 18 **Ocean Freight Rates For Selected Shipments, Week Ending 09/27/2014** 

Export	Import	Grain	Loading	Volume loads	Freight rate
region	region	types	date	(metric tons)	(US\$/metric ton)
U.S. Gulf	China	Heavy Grain	Oct 10/20	60,000	45.00
U.S. Gulf	China	Heavy Grain	Oct 1/10	57,000	45.50
U.S. Gulf	China	Heavy Grain	Oct 1/10	60,000	45.50
U.S. Gulf	China	Heavy Grain	Oct 1/10	60,000	44.00
U.S. Gulf	China	Heavy Grain	Oct 1/5	60,000	44.50
U.S. Gulf	China	Heavy Grain	Sep 20/ Oct 10	55,000	45.25
U.S. Gulf	Djibouti <sup>1</sup>	Sorghum	Sep 10/24	24,000	106.41
U.S. Gulf	Mexico	Heavy Grain	Aug 2/6	33,000	11.25
PNW	China	Heavy Grain	Nov 1/30	60,000	26.50
PNW	Philippines	Grain	Aug 1/15	65,000	22.50
Brazil	China	Heavy Grain	Sep 1/10	60,000	34.00
Brazil	China	Grain	Aug 20/30	60,000	31.50
Brazil	China	Grain	Aug 10/31	60,000	33.25
Brazil	China	Grain	Aug 1/30	65,000	35.50
Germany	Iran	Wheat	Aug 20/Sep 8	65,000	35.00
River Plate	China	Heavy Grain	Aug 1/31	60,000	44.50
River Plate	Philippines	Soybeanmeal	Sep 20/27	40,000	40.00

 $Rates\ shown\ are\ for\ metric\ ton\ (2,204.62\ lbs.=1\ metric\ ton), F.O.B., except\ where\ otherwise\ indicates;\ op=option$ 

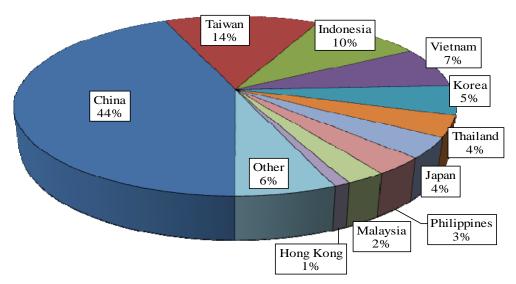
Source: Maritime Research Inc. (www.maritime-research.com)

<sup>&</sup>lt;sup>1</sup>50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

In 2013, containers were used to transport 10 percent of total U.S. waterborne grain exports, up 2 percentage points from 2012. Approximately 61 percent of U.S. waterborne grain exports in 2013 went to Asia, of which 16 percent were moved in containers. Asia is the top destination for U.S. containerized grain exports—96 percent in 2012.

Figure 18

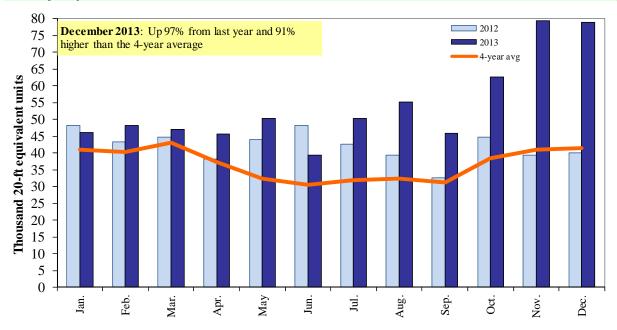
Top 10 Destination Markets for U.S. Containerized Grain Exports, 2013



Source: USDA/Agricultural Marketing Service/Transportation Services Division analysis of Port Import Export Reporting Service (PIERS) data

Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 230310, 110220, 110290, 120100, 230210, 230990, 230330, and 120810.

Figure 19
Monthly Shipments of Containerized Grain to Asia



Source: USDA/Agricultural Marketing Service/Transportation Services Division analysis of Port Import Export Reporting Service (PIERS) data

Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 230310, 110220, 110290, 120100, 230210, 230990, 230330, and 120810.

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